REMARKS

Claims 1-5, 7, 9-14 and 16-23 are now pending in the application. Claims 1-5, 7, 9-14 and 16-23 stand rejected. Claims 6, 8, and 15 have been previously canceled. Claims 1, 12 and 22-23 have been amended herein. Support for the amendments can be found throughout the application, drawings and claims as originally filed and, as such, no new matter has been presented. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

REJECTION UNDER 35 U.S.C. § 103

Claims 1-5, 7, 12-14, 16-17, 21-23 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Ahn (U.S. Pat. Pub. No. 2003/0013466; hereinafter "Ahn"), Padmanabhan (U.S. Pat. No. 6,766,245; hereinafter "Padmanabhan"), and Ogasawara et al. (U.S. Pat. No. 6,947,754; hereinafter "Ogasawara") in view of Irvin (WIPO Pat No. WO 200030379; hereinafter "Irvin"). This rejection is respectfully traversed.

Initially, Applicant notes that Ahn appears to disclose a system for transmitting a message to various cellular phone subscribers that exist within defined geographic regions. In particular, with reference to the Table, Ahn defines his geographical scope as cell wide (cellular area where message originates), PLMN wide (entire cellular network), or location area wide (cellular area where message originates and neighboring cellular areas). Padmanabhan discloses a location determination system in which landmarks are used to determine the location of the user. Ogasawara discloses the use of wide area location registration and narrow area location registration to

determine a location of a mobile station 10. In this regard, Ogasawara discloses that the wide area location is defined by a plurality of radio zones covered by a plurality of base stations 21, while a narrow area location is a radio zone of a single base station. Note that this technique does not identify a specific unique position of the mobile station 10, but rather narrows the position of the mobile station 10 to a zone. With regard to Irvin, Irvin discloses broadcasting messages to one or more cellular phone subscribers in a particular area using a digital cellular communications network. In contrast to the cited art, independent Claim 1 has been amended to recite:

> designating an **arbitrary geographic region** to transmit the message to by reference to a physical structure within the geographic region…
>
> transmitting the message to the addresses of each of the recipients having current locations within the geographic region by serially unicasting the message **over a mobile ad hoc network** (emphasis added).

Independent Claim 12 has been amended to recite:

> …a **mobile ad hoc network**;
>
> a transmitter connected to the network;…
>
> the transmitter enables reception of a message and a geographic destination designator that designates a geographic destination for the message, and further enables access to the geospatial database to identify the addresses of the receivers in the geographic destination to transmit the message to the identified receivers within that geographic destination based on the reported address for each said identified receiver, the geographic destination comprising a geographic region **arbitrarily defined** by reference to one or more physical structures within the geographic region, the transmitter enabling transmission of the message as a series of unicast messages to the identified receivers (emphasis added).

Independent Claim 22 has been amended to recite:

> …a **mobile ad hoc network**;
>
> a transmitter connected to the network;

> the transmitter enabling operation at an OSI application level to receive a message and a geographic destination designator that designates an **arbitrarily defined geographic destination** for the message, the geographic destination defined by at least one physical structure in the geographic destination and that enables access to the geospatial database to identify the addresses of the receivers currently reported to be in the geographic destination, to transmit the message to the identified receivers within the geographic destination based on their reported current address, and that enables transmission of the message as a series of unicast messages to the identified receivers within the geographic destination (emphasis added).

Independent Claim 23 has been amended to recite:

> ...transmitting a message to at least one selected recipient based on their **geographic location** by:...
> (3) serially unicasting the message to the addresses of the recipients that are located within the geographic region **over a mobile ad hoc network** (emphasis added).

In view of the above discussion, Applicant respectfully asserts that Ahn, Padmanabhan, Ogasawara and Irvin, singly or in combination, do not teach, suggest or disclose each and every element of at least Claims 1, 12, 22 and 23. In this regard, none of the cited art teach, suggest or disclose designating an **arbitrary geographic region** to transmit the message to and transmitting the message to the addresses of each of the recipients having current locations within the geographic region by serially unicasting the message **over a mobile ad hoc network**, as claimed in Claim 1. With regard to Claim 12, the cited art does not teach, suggest or disclose a **mobile ad hoc network** and transmitting the message to identified receivers within a geographic destination based on a reported address for each said identified receiver, with the

geographic destination comprising a geographic region that is **arbitrarily defined**, as claimed. Regarding Claim 22, the cited art does not teach, suggest or disclose a **mobile ad hoc network** and the transmitter enabling operation at an OSI application level to receive a message and a geographic destination designator that designates an **arbitrarily defined geographic destination** for the message, as claimed. Further, With regard to Claim 23, the cited art does not teach, suggest or disclose transmitting a message to at least one selected recipient based on their **geographic location** by...serially unicasting the message to the addresses of the recipients that are located within the geographic region **over a mobile ad hoc network**, as claimed.

Rather, the cited art teaches the use of a cellular network to broadcast the messages. In this regard, Ahn teaches broadcasting messages as a function of the physical locations of cell towers. In other words, Ahn leverages the existing protocols and infrastructure that exist with cellular phone technology to broadcast his message. Similarily, Padmanabhan, Ogasawara and Irvin fail to remedy the shortcomings of Ahn, as each of Padmanabhan, Ogasawara and Irvin teaches broadcasting messages with the use of cellular phone technology that relies upon an existing wireless cellular networks created by statically placed transmission towers, which are pre-placed strategically within a geographic region. The mobile devices contemplated by Ahn, Padmanabhan, Ogasawara and Irvin move in reference to this static or stationary equipment. Further, Ahn teaches locating and grouping communications to the users based on the pre-defined cell tower infrastructure (i.e. the known cellular area), like Ogasawara, who teaches locating users based on their proximity to radio zones (cellular area) defined by the base station or cell phone tower.

In contrast to Ahn, Padmanabhan, Ogasawara and Irvin, Applicant claims broadcasting messages over a mobile ad hoc network – a network in which the mobile devices themselves create their own potentially constantly changing infrastructures. In other words, Applicant's claims relate to transmitting messages in environments that do not have any existing communications infrastructures whatsoever (e.g., battlefields, space exploration, under-sea exploration, disaster recovery). As claimed, Applicant's network infrastructure itself is formed by the arbitrary geographic location of the mobile entities themselves. Since the entities that comprise the networks themselves are moving in potentially random and certainly unknown ways, the location of those entities are continually changing, and thus, the geographic region for the transmission of the message is continually changing.

In addition, Applicant notes that the mobile devices of Ahn, Padmanabhan, Ogasawara and Irvin cannot operate on a mobile ad hoc network as claimed. Rather, as discussed, the message transmission techniques of the cited art are entirely dependant upon pre-defined cellular areas and cannot exist outside of a cell phone infrastructure context. Further, Applicant notes that one of ordinary skill in the art would not modify Ahn to include mobile devices that are capable of operating on a mobile ad hoc network as there is no evidence or suggestion of such a configuration in Ahn (see *Ex Parte Katoh et. al.*, Appeal 20071460, Decided May 29, 2007), much less a "rational underpinning" as to why such a combination would be obvious, as required by *KSR v. Teleflex*, 550 U.S. ___, 127 S. Ct. 1727 (2007). In addition, such a modification would change the principle of operation of Ahn, and thus, is improper. MPEP 2143.01.

With additional reference to Claim 1, Applicant notes that Claim 1 also recites:

> ...determining the addresses of the recipients that are located within the geographic region by using the geospatial database to compare the current reported locations of the recipients with the reference to the structure, the address of at least one of the recipients being an **internet protocol (IP) address**;
>
> changing the wide area network address of the recipient to dynamically obtain a **new IP address** due to movement of the recipient; and ...(emphasis added).

In view of the above discussion, Applicant respectfully asserts that Ahn, Padmanabhan, Ogasawara and Irvin, singly or in combination, do not teach, suggest or disclose each and every element of Claim 1. In this regard, none of the cited art teach, suggest or disclose the address of at least one of the recipients being an **internet protocol (IP) address** or changing the wide area network address of the recipient to dynamically obtain a **new IP address** due to movement of the recipient, as claimed. Rather, Ahn, Padmanabhan, Ogasawara and Irvin teach the use of OSI layers 1 and 2 to broadcast cellular messages, and not the use of TCP/IP protocol.

Accordingly, as the cited art fails to teach, suggest and disclose each and every element of Claims 1, 12, 22 and 23, Applicant respectfully requests the Office to reconsider and withdraw the rejection of Claims 1, 12, 22 and 23 under 35 U.S.C. § 103(a). Further, since Claims 2-5, 7, 13, 14, 16, 17 and 21 depend from either independent Claim 1 or 12, Claims 2-5, 7, 13, 14, 16, 17 and 21 should be in condition for allowance for at least the reasons set forth for Claims 1 and 12 above. Accordingly, Applicant respectfully requests the Office reconsider and withdraw the rejections of Claims 2-5, 7, 13, 14, 16, 17 and 21 under 35 U.S.C. § 103(a).

Claims 9-10 and 18-19 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Ahn and Padmanabhan, Ogasawara, and Irvin, further in view of Jambhekar et al. (U.S. Pat. No. 6,973,318; hereinafter "Jambhekar"). Claims 11 and 20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Ahn and Padmanabhan, Ogasawara, and Irvin, further in view of Richard (U.S. Pat. No. 6,785,551; hereinafter "Richard." These rejections are respectfully traversed.

With regard to Claims 9-11 and 18-20, Applicant notes these claims depend either directly or indirectly from independent Claims 1 or 12, and thus, Claims 9-11 and 18-20 should be in condition for allowance for at least the reasons set forth for Claims 1 and 12 above. Therefore, Applicant respectfully requests that the Examiner reconsider and withdraw the rejection of Claims 9-11 and 18-20 under 35 U.S.C. §103(a).

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

Dated: 7/17/08

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